

GLOBAL
RESEARCH
ALLIANCE

ON AGRICULTURAL GREENHOUSE GASES

Belgium

Summary of relevant activities, future priorities and capability needs from Belgium

Input to 2024 Livestock Research Group Meeting
Berlin, Germany

Relevant activities

- *On farm carbon footprint calculation (KLIMREK (Flanders), DECiDE (Wallonia))*
- *Carbon balance on a suckler cow farm: effects of climate and grazing management (ULG)*
- *Carbon sequestration, soil health (EJP SOIL)*
- *Manure emissions: CH₄, NH₃, N₂O, CO₂*
 - *Manure containers testing facility*
 - *E.g. zeolites, biochar, manure acidifiers,...*
- *Effect of grazing on methane emissions (GrASTech)*
- *Covenant enteric emissions cattle 2019-2030 (FL)*
 - *Goal: Reduction of enteric CH₄ emissions with 19% by 2030 compared to 2005*
 - *METHEEN (2023-2025): Demonstrating the covenant measures in practice*
- *Climate adaptation: drought-tolerant grass species (KLIMGRAS), saline agriculture (SALAD),...*
- *Influence of government policy on long-term management choices and rentability (Routeplanner Melkvee 2.0)*
- *Combine state-of-the-art big data and data-space technologies with agricultural knowledge (including GHG emissions), new business models and agri-environment policies (AgriDataValue)*
- *From methane reduction screening feed components and additives to measurement of reducing feed strategies on commercial farms (HappyCliMi)*
- *the reduction of methane of dairy cows (nutrition/genetics); estimation of methane emission based on milk MIR (METHAMILK)*

Future priorities

- *Support sustainable practices for an agriculture with a lower carbon footprint and resistant to climate change (FL+WA) (AGRICLIMATE)*
- *Integrating in vitro and in vivo methane research and knowledge on combination strategies (KlimVEE)*
- *NH₃ ('nitrogen crisis' in Flanders and the Netherlands)*
- *N₂O and other soil emissions*
- *Soil fertility*
- *More circular agriculture, incorporating sustainability and biodiversity*
- *More Tier 2 & 3 methodology introduced in NIR*
- *Less incriminating protein importation*
- *Maximize valorization of byproducts*
- *Less mineral fertilization and optimization organic manure*
- *Introduce more adaptation strategies*
- *Genetics and selection of robust animals*

- *Political / sectoral issues:*
 - *Main issue is currently ammonia (Flanders); new legislation (Natura 2000; nitrogen) impacts almost all farms rather severely as soon as they need a new producing license.*
 - *GHG problem has lost attention*
 - *Flanders: financial support for farmers adopting methane reducing measures like (Bovaer, nitrate, linseed,...)*

Capability needs

- *Focus on both nitrogen AND greenhouse gas emission reductions*
- *Implementation of covenant measures (evaluation in 2025) (Flanders)*
- *Integral sector approach*
- *Integral nutrient approach (C, N, P)*
- *Socio-economic impact of measures and strategies*
- *Strengthen international networks*